

What is claimed is:

1. A simulation unit comprising:
  - a processing unit;
  - wherein the processing unit is configured to have multiple ports;
  - wherein each of the multiple ports represents a distinct Internet protocol address;

and

wherein the simulation unit emulates multiple network connections.
2. A simulation unit adapted to couple to a central unit, it comprising:
  - a processing unit;
  - at least two port adapters coupled to the processing unit, wherein each port adapter includes one or more ports adapted to be coupled to the central unit; and
  - wherein each of the one or more ports represents a distinct Internet protocol address and simulates a separate connection to the central unit.
3. The simulation unit of claim 2, wherein the simulation unit is adapted to execute a test software program.
4. The simulation unit of claim 2, wherein each of the one or more ports is coupled to the central unit using a digital subscriber line.
5. The simulation unit of claim 2, wherein the processing unit utilizes test execution software to simulate transfer of information between the one or more ports and the central unit.
6. The simulation unit of claim 2, wherein the processing unit simulates system loading by transferring information between the one or more ports and an access network via digital subscriber lines.
7. The simulation unit of claim 2, wherein the central unit is one of a digital

subscriber line access multiplexer, and a remote digital subscriber line access multiplexer.

8. The method of claim 6, further comprising recording and repeating the transfer of information between the one or more ports and the central unit.

9. The method of claim 6, wherein transferring information comprises transferring one or more of voice, data, and video information.

10. A method of testing by simulating an access network, the method comprising:  
using a processing unit for generating a script for a test software program, the processing unit having at least two port adapters, each of the at least two port adapters having one or more ports, and each of the one or more ports having a distinct Internet protocol address; and

running the script for the test software program for each of the one or more ports, wherein running the script includes:

recognizing each of the one or more ports as a distinct Internet protocol address;

establishing communication between the one or more ports and a central unit; and

generating a transfer of information between the one or more ports and the central unit.

11. The method of claim 10, wherein generating the transfer of information between the one or more ports and the central unit includes generating the transfer of one or more of voice, data, and video information.

12. The method of claim 10, further comprising recording and repeating the transfer of information between the one or more ports and the central unit.

13. A method of testing by simulating an access network, the method comprising:

executing a test software program using a processing unit having at least two port adapters and each of the at least two port adapters having one or more ports;

recognizing each of the one or more ports via a distinct Internet protocol address; establishing communication between the one or more ports and a central unit; and creating a simulation of system loading, that includes:

transferring information between the one or more ports and the central unit,

storing information in memory of the processing unit,

repeating the transferring of the information between the one or more ports and the central unit,

analyzing the stored information; and

outputting the results.

14. A simulation system comprising:

a remote processing unit;

wherein the remote processing unit is adapted to couple to one or more simulation units;

each of the one or more simulation units comprising:

a processing unit;

wherein the processing unit is configured to have multiple ports;

wherein each of the multiple ports represents a distinct Internet protocol address; and

wherein each simulation unit emulates multiple network connections.

15. A simulation system adapted to couple to a central unit, the simulation system comprising:

a remote processing unit; and

one or more simulation units, coupled to the remote processing unit, each simulation unit comprising:

a processing unit;

at least two port adapters coupled to the processing unit, wherein each port adapter includes one or more ports adapted to be coupled to the central unit; and  
wherein each of the one or more ports represents a distinct Internet protocol address and simulates a separate connection to the central unit.

16. The simulation system of claim 15, wherein the simulation system is adapted to execute a script to initialize, activate and control one or more simulation units.

17. The simulation system of claim 15, wherein the remote processing unit is coupled to the processing unit of the one or more simulation units.

18. The simulation system of claim 15, wherein the simulation unit is adapted to execute a test software program.

19. The simulation system of claim 15, wherein each of the one or more ports is coupled to the central unit using a digital subscriber line.

20. The simulation system of claim 15, wherein the processing unit utilizes test execution software to simulate transfer of information between the one or more ports and the central unit.

21. The simulation system of claim 15, wherein the processing unit simulates system loading by transferring information between the one or more ports and an access network via digital subscriber lines.

22. The simulation system of claim 15, wherein the central unit is one of a digital subscriber line access multiplexer, and a remote digital subscriber line access multiplexer.

23. The simulation unit of claim 15, wherein each of the one or more ports is coupled to the central unit using a digital subscriber line.

24. The simulation unit of claim 15, wherein the processing unit utilizes test execution software to simulate transfer of information between the one or more ports and the central unit.

25. The simulation unit of claim 15, wherein the processing unit simulates system loading by transferring one or more of data, video, and voice, between the one or more ports and an access network via a digital subscriber line.

26. A method of simulating an access network, the method comprising:  
generating a script for initializing, activating and controlling one or more simulation units using a remote processing unit;  
generating a script for a test software program in each of the active simulation units using a processing unit having at least two port adapters, each of the at least two port adapters having one or more ports, and each of the one or more ports having a distinct Internet protocol address; and  
running the script for the test software program for each of the one or more ports, wherein running the script includes:  
recognizing each of the one or more ports as a distinct Internet protocol address;  
establishing communication between the one or more ports and a central unit; and  
generating a transfer of information between the one or more ports and the central unit.

27. The method of claim 26, further comprising recording and repeating the transfer of information between the one or more ports and the central unit of the active simulation units.

28. The method of claim 26, wherein transferring information comprises transferring one or more of voice, data, and video information.

29. A method of testing by simulating an access network, the method comprising: initializing, activating and controlling a processing unit of one or more simulation units by a remote processing unit;

executing a test software program using a processing unit of active simulation units having at least two port adapters and each of the at least two port adapters having one or more ports;

recognizing each of the one or more ports via a distinct Internet protocol address;

establishing communication between the one or more ports and a central unit;

creating a simulation of system loading, that includes:

transferring information between the one or more ports and the central unit,

storing information in memory of the processing unit,

repeating the transferring of the information between the one or more ports and the central unit, and

recording and analyzing the stored information;

storing all analyzed results in the remote processing unit; and

outputting the results.